

Candidates are required to answer all the questions in their own words as far as practicable.

Brief Answer Questions (Attempt all questions) Group "A"**[10 × 2 = 20]**

- Who are the major players in financial markets?
- What is financial market?
- Differentiate between long and short position.
- Mention the factor influencing investment behaviour.
- What is efficient frontier?
- Define the domestic macro-economy.
- What are the basic characteristics of bond?
- Over the past five years, the dividends of Yeti Company have grown from Rs.10 per share to the current level of Rs.20 per share. What is the dividend growth rate?
- Suppose you purchased 300 shares for Rs.200 at 65 percent initial margin requirement. How much do you have in your account? What is the debit balance in your margin account?
- Suppose standard deviation of ABC common stock return is 6 percent and that of market portfolio is 9 percent. The correlation between ABC stock and market return is 0.3. What is the beta of ABC stock? And interpret the result.

Short Answer Questions (Attempt any SIX questions) Group "B" [6 × 5 = 30]

- Describe the processes that investor should follow while making investment decision. (5)
- Consider the following information from the four common stocks listed below. Four stocks issued no additional shares and had no stock dividend and stock splits.

Stock	P	Q	R	S
Total share outstanding on both dates	5,000	1,000	10,000	4,000
Base year market price on Jan. 1, 2010 (Rs.)	600	200	400	800
Current market price on Jan. 1, 2024 (Rs.)	800	400	700	600

- If new four stocks index is value weighted, what will be the value weighted index on January 1, 2010 and January 1, 2024? Also interpret the result.
 - If new four stocks index is price weighted, what will be the price weighted index on January 1, 2010 and January 1 2024? Also interpret the result. (3 +2)
- A 2- year bond selling at Rs.1000 par value is paying a 10 percent coupon once a year. Suppose the yield to maturity is also 10 percent. If the coupon payment can be re-invested at an interest rate of 10 percent, what is its realized compounded rate? (5)
 - NIC Company has just paid a cash dividend of Rs.20 per share. Investors require a 15 percent return from investments such as this. If dividend is expected to grow at a steady 5 percent per year.
 - What is the current value of the stock?
 - What will the stock be worth in five years? (3+2)
 - An investor purchased 100 shares of common stock at Rs. 200 per share one year ago. The company declared and paid a dividend of Rs.20 per share during the year. The investor sold the stock for Rs. 210 per share after the one year holding period.
 - Calculate the rupee return from this investment.
 - Calculate the HPR for this investment.
 - Partition the HPR into its dividend and capital appreciation components. (2 +1+2)
 - Mrs. Poudyal purchased 100 shares of XYZ Corporation for Rs.800 per share using initial margin of 60 percent. Given a 25 percent maintenance margin requirement, how far does the stock have to drop before Mrs. Poudyal faces a margin call? Assume that there are no other securities in the margin account. (5)
 - What are the macroeconomic factors affecting stock prices? What are the key indicators of macroeconomic. (3+2)

18. Describe the technical analysis and its key assumptions underpinning technical analysis? Discuss each assumption and its significance. (4+3+3)
19. Data suppose that you have the following data on the performance of your tax-deferred portfolio.

	Market Value	Income distribute
January 1, 2003	Rs.8000	—
December 31, 2003	8100	Rs.500
December 31, 2004	11,000	100

Calculate: (a) The HPR for 2003 (b) The HPR for 2004

- (c) The two-year HPR under the assumption that Rs.500 distribution would be treated as income that was not reinvested.
- (d) The two-year HPR under the assumption that Rs.500 is reinvested when it was received on December 31, 2003 at the HPR rate of 2004. (4 × 2.5)
20. A 10 year, 12 percent semiannual coupon bond, with a par value of Rs.1,000, may be called in 4 years at a call price of Rs.1,060. The bond sells for Rs.1,100. (Assume that the bond has just been issued.) (3+2+2+3)
- a) What is the bond's yield to maturity? b) What is the bond's current yield?
- c) What is the capital gain or loss yield? d) What is the bond's yield to call?
21. Assume the management of Makulu Bank has recently announced that expected dividends for the next four years will be as follows.

Year	Dividend
1	12.00
2	20.00
3	30.00
4	45.00

For the subsequent years, the management expects the dividend to grow at 7 percent annually. If the risk-free rate is 4 percent, the return on the market is 10 percent, and the firm's beta is 1.333, what is the maximum price you should pay for the stock? (10)

Comprehensive Question

Group "D"

[1 × 20 = 20]

22. You have recently been appointed in the post of chief management officer of a NICASIA Mutual Fund. The fund has invested Rs.50 million in a simple diversified portfolio of stock Fund A (50 percent) and long term government and corporate bond Fund B (50 percent). Now you are asked to analyze risk-return of minimum variance portfolio, optimal risky portfolio and complete portfolio. To assist you, the following expected return and standard deviation of stock fund A and bond fund B and risk-free assets have been developed:

	Expected return	Standard deviation
Stock fund A	20%	30%
Bond fund B	12	15

The correlation coefficient between return on stock fund A and bond fund B funds is 0.10.

Questions:

- Calculate return and risk of existing portfolio that is equal amount of investment in stock fund A and bond fund B.
- What are the investment proportions in the minimum-variance portfolio of the two risky funds?
- What is the expected value and standard deviation of rate of return on minimum variance portfolio of the two risky funds?
- What is the weighted of each risky asset in optimal risky portfolio? Solve numerically for the expected return and standard deviation of the optimal risky portfolio.
- Compare risk and return of existing, minimum variance and optimal risky portfolio. Which one would you recommend to your mutual fund? Why? (3+3+3+8+3)

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